

REMARKS**Amendments**

Applicants have amended claims 20 and 24 to note that the set of electrodes are arranged in two layers. The amendment is supported by, inter alia, page 6, lines 1-20. No new matter has been entered.

Applicants have also amended claim 21 to correct a minor grammatical error. Specifically, "include" has been changed to --includes--.

Rejection under 35 U.S.C. § 102(e)

Claims 1-28 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,198,523 to Helbing (hereinafter Helbing).

It is well settled that to anticipate a claim, the reference must teach every element of the claim. *See* M.P.E.P. § 2131. Moreover, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he elements must be arranged as required by the claim." *See* M.P.E.P. § 2131, *quoting In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Furthermore, in order for a prior art reference to be anticipatory under 35 U.S.C. § 102 with respect to a claim, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." *See* M.P.E.P. § 2131, *quoting Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989). Applicants respectfully assert that the rejection does not satisfy these requirements.

Claim 1 recites, in part:

- a first electrode;
- a second electrode; and
- a layer of liquid crystal material positioned between the first and second electrodes;

wherein the first and second electrodes conduct current to heat the polarizer.

Claim 13 recites, in part:

A method of driving a switchable polarizer in one of two modes, the switchable polarizer having first and second electrodes and a liquid crystal material between the electrodes...said method comprising:

drawing equal currents through the first and second electrodes during the first driving mode.

Claim 17 recites, in part:

a first electrode for receiving a first driving signal, and a second electrode for receiving a second driving signal, wherein the first and second driving signals are different;

a layer of liquid crystal material positioned between the first and second electrodes;

a first current source switchably coupled to the first electrode, said first current source for drawing a first current through the first electrode;

a second current source switchably coupled to the second electrode, said second current source for drawing a second current through the second electrode, said second current being equal in magnitude to the first current.

Claim 20 recites, in part:

a set of electrodes arranged in two layers; and

a layer of liquid crystal material positioned between the two layers of the set of electrodes;

wherein said set of electrodes are operable to control polarization states of said layer of liquid crystal and are operable to conduct sufficient current to control a temperature of said layer of liquid crystal.

Claim 24 recites, in part:

driving a set of electrodes to cause current to flow through said set of electrodes to sufficiently heat a liquid crystal layer of said liquid crystal polarizer to control a temperature of said liquid crystal layer, wherein said set of electrodes is arranged in two layers surrounding said liquid crystal layer; and

driving said set of electrodes to establish an electric field across said layer of liquid crystal to control polarization states of said liquid crystal.

The Examiner asserts that Helbing discloses first and second electrodes for drawing current. Office Action, page 3. To support this assertion, the Examiner merely points to FIGURE 7A and cites lines 16-40 of column 18 of Helbing. However, the portions of Helbing upon which the Examiner relies have no relationship to the claimed subject matter. Specifically, FIGURE 7A of Helbing merely illustrates the angle between the directions of polarization of light reflected from pixels having a forward electric field and pixels having a reverse electric field. Col. 12, lines 33-37. As seen in FIGURE 7A, the angle between the

direction of polarization is not always at the desired relationship (ninety degrees) for optimal contrast of the display. Accordingly, Helbing seeks to adjust the angle between the directions of polarization. Specifically, Helbing states "[i]n response to the alignment control signal (M), the electric field magnitude control circuit adjusts at least one of the first angle and the second angle." Col. 18, lines 23-26.

Moreover, other portions of Helbing refute the Examiner's position that current is conducted or drawn through the electrodes of Helbing. As seen in FIGURE 10A, there is only one lead to each of the electrodes 13 and 17 that control the polarization state of the liquid crystal. Because there is only one lead, there is only one possible current path. The possible current path is from one of the electrodes through the liquid crystal to the other electrode. However, the current path through the liquid crystal does not conduct current by design. Specifically, Helbing discloses that electrodes 13 and 17 are deposited on first transparent cover 15 and second transparent cover 19, which are known in the art to be non-conductive. Thus, electrodes 13 and 17 act as capacitive plates to establish an electric field in the liquid crystal by maintaining a potential difference. Col. 4, lines 1-21. Because electrodes 13 and 17 merely act as capacitive plates, no current is conducted or drawn through electrodes 13 and 17.

In regard to claims 1, 13, 20, and 24, the current drawn or conducted through the electrodes must heat the liquid crystal or polarizer or control the temperature of the liquid crystal polarizer. Also, the liquid crystal or polarizer is arranged between the electrodes. Helbing does not teach or suggest heating or controlling the temperature in such a manner. Specifically, Helbing discloses "[t]he heater is preferably transparent and affixed to at least one of the first transparent layer cover 15 and the second transparent layer cover 19." Col. 18, lines 52-54. Thus, Helbing teaches a third layer for heating the liquid crystal that is separate and distinct from the electrodes that control the polarization states of the liquid crystal.

Helbing does not disclose each and every limitation of claims 1, 13, 17, 20, and 24. Claims 2-12, 14-16, 18, 19, 21-23, and 25-28 respectively depend from base claims 1, 13, 17, 20, and 24 and, hence, inherit all limitations of their respective base claim. Therefore, Helbing does not anticipate claims 1-28.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicants believe no fee is due with this response, other than that addressed in the enclosed Transmittal. However, if an additional fee is due, please charge our Deposit Account No. 08-2025, under Order No. 10992292-1 from which the undersigned is authorized to draw.

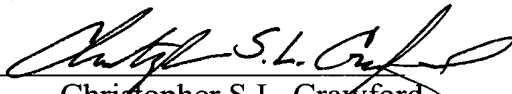
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Date of Deposit: September 19, 2003

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Respectfully submitted,

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